

Claims

1. An electric fan comprising a housing body, a front cover defining a fluid inlet to the housing and a rear fluid outlet aligned with said fluid inlet, a motor and impeller mounted within the housing between said inlet and outlet for drawing fluid into the housing in a direction from said inlet towards said outlet within the housing in an outwardly radially direction before exiting via the outlet, the front cover being moveable relative to the housing to allow access to the impeller and motor.
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10. 2. An electric fan according to Claim 1, wherein the front cover is removable from the housing body.
15. 3. An electric fan according to Claim 1 or 2, wherein the removal of the front cover effects isolation of the motor to prevent the fan working in an unguarded state.
20. 4. An electric fan according to any of Claims 1 to 3, wherein the front cover clips onto the housing body about their respective peripheral edges.
25. 5. An electric fan according to any of Claims 1 or 4, wherein the impeller is removable from the housing body
30. 6. An electric fan according to any of Claims 1 to 5, wherein components of the electric fan are co-axially arranged along the axis such that removal of a first component by movement along the axis facilitates access to a second component.
7. An electric fan according to any of Claims 1 to 6 which further includes a means to collect the radially directed fluid and direct it towards the fluid outlet, the collecting means being a plurality of collection chambers.

8. An electric fan according to *Claim 7*, wherein the collection chambers are circumferentially spaced about said axis.
9. An electric fan according to *Claim 8* or *9*, wherein the collection chambers comprise a plurality of helical conduits.
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10. An electric fan according to *Claim 9*, wherein the helical conduits each have a circumferentially disposed inlet and an axially disposed outlet.
- 10 11. An electric fan according to any of *Claims 1* to *10*, wherein at least one component of the fan is substantially sealed from dust or water.
12. An electric fan according to *Claim 11*, wherein the component is selected from the group consisting of; motor, drive, controls.
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13. An electric fan according to *Claims 11* or *12*, wherein the sealed component is encased in protective chamber.
14. An electric fan according to any of *Claims 1* to *13*, wherein the fan further comprises a humidity sensor.
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15. An electric fan according to *Claim 14*, wherein the speed of the fan is increased in response to a pre-determined increase in humidity detected by the humidity sensor.
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16. An electric fan according to any of *Claims 1* to *15*, wherein the fluid is a gas.
17. An electric fan according to *Claim 16*, wherein the gas is air.
- 30 18. An electric fan according to any of *Claims 1* to *15*, wherein the fan is a pump and the fluid is a liquid.

19. An electric fan according to any of Claims 1 to 18, wherein the fan is an extract fan, pressure device or circulation device.
20. A fan assembly comprising two or more electric fans according to any of 5 Claims 1 to 19, wherein the fans are mounted within a common housing.
21. An appliance comprising an electric fan according to any of Claims 1 to 19.
22. An appliance according to Claim 21, wherein the appliance is a domestic 10 appliance.

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